Tracks for TCSCM/H20

Courses offered during 2021

Version: August 20, 2020

Note: this graphical overview is provided with reservation for changes and possible errors. Please always refer to the official definition of the programme found in the programme syllabus.
Choose at least 7.5 credits

DD2421 (7.5) Machine Learning

DD2424 (7.5) Deep Learning in Data Science

DD2437 (7.5) Artificial Neural Networks and Deep Architectures

DD2418 (6.0) Language Engineering

Choose One

DT2112 (7.5) Speech technology

DT2119 (7.5) Speech and Speaker Recognition

DD2423 (7.5) Image Analysis and Computer Vision

DD2410 (7.5) Introduction to Robotics

DT2140 (7.5) Multimodal Interaction and Interfaces

DT2151 (7.5) Project in Conversational Systems

P3 Spring 2021

P4 Spring 2021

P1 Autumn 2021

P2 Autumn 2021

Figure 1: CSCS — Cognitive Systems
Choose One

- **DD2421 (7.5)** Machine Learning
- **DD2418 (6.0)** Language Engineering
- **DD2424 (7.5)** Deep Learning in Data Science
- **DD2437 (7.5)** Artificial Neural Networks and Deep Architectures
- **DD2420 (7.5)** Probabilistic Graphical Models
- **DD2430 (7.5)** Project in Data Science
- **DD2444 (7.5)** Machine Learning, Advanced Course
- **DD2434 (7.5)** Machine Learning, Advanced Course
- **DD2430 (7.5)** Project in Data Science

Figure 2: CSDA — Data Science
Choose at least 15.0 credits

DH2400 (7.5)
Physical Interaction Design and Realization

DH2321 (6.0)
Information Visualization

DH2632 (3.0)
Human-Computer Interaction, Research Seminars

DH2628 (7.5)
Interaction Design Methods

DH2629 (7.5)
Interaction Design as Reflective Practice

P3 Spring 2021

P4 Spring 2021

P1 Autumn 2021

P2 Autumn 2021

Figure 3: CSID — Interaction Design
Choose one

DD2363 (7.5)  Methods in Scientific Computing
DD2365 (7.5)  Advanced Computation in Fluid Mechanics
DD2356 (7.5)  Methods in High Performance Computing
DD2257 (7.5)  Visualization
DD2444 (7.5)  Project Course in Scientific Computing

P3 Spring 2021
P4 Spring 2021
P1 Autumn 2021
P2 Autumn 2021

Figure 4: CSSC — Scientific Computing

Choose two

DD2520 (7.5)  Applied Cryptography
DD2525 (7.5)  Language-based Security
DD2448 (7.5)  Foundations of Cryptography
DD2443 (7.5)  Parallel and Distributed Computing
DD2496 (7.5)  Privacy Enhancing Technologies
DD2497 (7.5)  Project Course in System Security

P3 Spring 2021
P4 Spring 2021
P1 Autumn 2021
P2 Autumn 2021

Figure 5: CSSP — Security and Privacy
Figure 6: CSST — Software Technology
Choose at least 7.5 credits

- DD2448 (7.5) Foundations of Cryptography
- DD2457 (6.0) Program Semantics and Analysis
- DD2459 (7.5) Software Reliability
- DD2460 (7.5) Software Safety and Security
- DD2372 (6.0) Automata and Languages
- DD2443 (7.5) Parallel and Distributed Computing
- DD2442 (7.5) Seminars on Theoretical Computer Science
- DD2445 (7.5) Complexity Theory
- DD2452 (7.5) Formal Methods
- DD2467 (7.5) Individual Project in Theoretical Computer Science

Not offered 2021

- DD2372 (6.0) Automata and Languages
- DD2459 (7.5) Software Reliability
- DD2443 (7.5) Parallel and Distributed Computing

**Figure 7:** CSTC — Theoretical Computer Science
Choose at least 18.0 credits

DH2320 (6.0) Introduction to Visualization and Computer Graphics
DH2321 (6.0) Information Visualization
DH2323 (6.0) Computer Graphics and Interaction

DD2257 (7.5) Visualization

DD2650 (6.0) Computer Game Design

DH2413 (9.0) Advanced Graphics and Interaction
DD2470 (6.0) Advanced Topics in Visualization and Computer Graphics

Figure 8: CSVG — Visualization and Interactive Graphics